Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of claims:

- 1-3. (Canceled).
- 4. (Previously presented) An instruction pipe control method comprising:

reading a call instruction from an instruction pipestage,

determining, with reference to other instructions read previously from the instruction pipestage, whether immediate processing of the call instruction would exceed a predetermined access rate of the instruction pipe to a return-stack buffer and,

stalling processing of the call instruction until sufficient time has expired to synchronize processing of the call instruction with the predetermined access rate.

- 5. (Original) The method of claim 4, further comprising, after the stalling terminates, storing a return address associated with the call instruction both locally and in a shared resource.
- 6. (Previously presented) The method of claim 4, wherein the stalling stalls the instruction pipestage and all other instruction pipestages before it in the instruction pipe.
- 7. (Previously presented) An interface method for an instruction pipe that shares access to a return-stack buffer, comprising:

reading a call instruction from an instruction pipestage,

determining with reference to other call and/or return instructions read previously from the instruction pipestage, whether immediate processing of the call instruction would cause the instruction pipe to exceed the instruction pipe's access allocation to the return-stack buffer,

if so, stalling a new instruction, and after the stalling terminates, storing a return address associated with the call instruction both locally and in a shared resource.

- 8. (Canceled).
- 9. (Original) The method of claim 7, wherein the stalling stalls the instruction pipestage and all other instruction pipestages before it in the instruction pipe.

10-26. (Canceled).